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PRE-APPEAL BRIEF REQUEST FOR REVIEWDocket Number (Optional)
32860-000989/US

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On _____

Signature _____

Typed or printed name _____

Application Number
10/565,276Filed
January 20, 2006First Named Inventor
Patrick GEHLEN et al.Art Unit
2121Examiner
Tejal Gami

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☒ attorney or agent of record.
Registration number 34,313.

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____

Signature

Donald J. Daley
Typed or printed name703.668.8000
Telephone numberFebruary 26, 2008
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/565,276 Applicant: Patrick Gehlen
Filing Date: January 20, 2006 Examiner: Tejal Gami
Group Art Unit: 2121 Confirmation: 7963
Title: COUPLING DEVICE FOR THREE BUS SYSTEMS
Attorney Docket: 32860-000989/US

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
Mail Stop AF

February 26, 2008

REASONS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

Dear Sirs:

In response to the FINAL Office Action mailed on December 27, 2007 (hereinafter 'Action'), Appellants request that the Pre-Appeal Brief Review Board (hereinafter 'Board') review the pending rejections. These Reasons for Pre-Appeal Brief Request for Review are being filed concurrently with the Pre-Appeal Brief Request for Review and a Notice of Appeal.

Claims 1-14 are pending in the current application. Claim 1 is an independent claim. Claims 1-14 referred to herein are the claims as filed in the Response filed July 23, 2007. Claims 1-14 are being appealed.

I. MATERIAL UNDER REVIEW

Review is requested for the rejection of claims 1-3, 6-7, and 13-14 under 35 U.S.C. §102(b) as being anticipated by Moshier (U.S. 4,228,498, hereinafter Moshier) and for the rejection of claims 4-5 and 8-12 under 35 U.S.C. §103(a) as being unpatentable over Moshier in view of Krivoshein (US 6,449,715, hereinafter Krivoshein).

- A. Appellants respectfully submit that rejection of claims 1-14 under 35 U.S.C. § 102(b) and 35 U.S.C. §103(a) is improper because Moshier and Krivoshein fail to explicitly or inherently disclose, either alone or in combination, "a first connecting device for a first data bus; a second connecting device for a second data bus, ... a data processing device, connected to the first and the second connecting device to allow data to be interchanged between the data buses; and a third connecting device, connected to the data processing device, for a third data bus, ... to allow data to be interchanged between the three data buses, wherein the second data bus is a different type of bus

system than the first data bus, and the third data bus is a different type of bus system than the first data bus and the second data bus” as recited in independent claim 1.

In the Response to Arguments section of the Action the Examiner asserts that “Different types of bus systems” are taught by the prior art Moshier’s three separately distinguishable buses 16a, 16b, 16c. Appellants respectfully submit that the buses 16a, 16b, 16c of Moshier are not different types of bus systems. To the contrary, the buses 16a, 16b, and 16c are three buses of a same type of bus. Appellants respectfully submit MPEP 2106 II(C) requires that “when evaluating the scope of a claim, every limitation in the claim must be considered.” Claim 1 clearly recites a first data bus, a second data bus, and a third data bus. Accordingly, claim 1 requires three separate data buses. However, claim 1 additionally requires that “the second data bus is a different type of bus system than the first data bus, and the third data bus is a different type of bus system than the first data bus and the second data bus.” Therefore, claim 1 also requires that the three separate data buses be different types of bus systems, not that there are merely three separate buses. To interpret claim 1 otherwise would be giving no consideration to the claim limitations quoted above. Accordingly, Appellant respectfully submits that while Moshier may disclose the buses 16a, 16b, 16c, Moshier fails to disclose that the buses 16a, 16b, 16c have different types of bus systems, let alone connecting different types of bus systems as required by claim 1. Moshier at best discloses connecting buses having a same type of bus system to function modules.

Moshier discloses “a computing apparatus having at least three buses and a plurality of elementary function modules in circuit connection therewith.”¹ However, Moshier does not disclose a coupling apparatus for data buses including connecting devices for the data buses which connect different types of bus systems. To the contrary, Moshier discloses “a plurality of buses 16a, 16b, and 16c. Each bus comprises a plurality of individual electrical lines, the lines being organized into groups.”² Moshier continues by describing the buses 16a, 16b, 16c with the language “each bus comprises,” thereby further indicating that each of the buses 16a, 16b, 16c, are the same type of bus system. There is no indication in Moshier that the buses 16a, 16b, 16c have anything other than a same type of bus system. Therefore, the buses disclosed by Moshier are clearly each of the same type of bus system. This is further evidenced by the fact that Moshier labels the buses with the same reference number

¹ See Moshier at Abstract.

² Id. at Col. 3, Ll. 40-43.

16. Moshier does not disclose connecting devices coupled to data buses or a data processing device which allow data to be interchanged between different types of bus systems.

Appellants respectfully submit that Krivoshein fails to cure the deficiencies of Moshier discussed above in regard to claim 1. In particular, although Krivoshein does disclose at FIG. 2 a Fieldbus device network 30, a HART device network 32, a Profibus device network 34, and an AS-Interface device network 36, Krivoshein fails to disclose that these devices may be connected together in the manner required by claim 1. In particular, Applicant respectfully submits that Krivoshein clearly fails to disclose a separate connecting device for each data bus, the connecting devices and/or a data processing device connecting data buses of different types of bus systems to allow data to be interchanged between the data buses. To the contrary, Krivoshein merely discloses a user input section 74 which prompts or otherwise enables a user to input information pertaining to any or all of the devices.³ Therefore, Krivoshein merely discloses a user input section and **not** connecting devices coupled to data buses having different types of bus systems. Further, one skilled in the art would not have a reason or the knowledge of how to connect the Fieldbus, HART, Profibus, and AS-Interface of Krivoshein as the buses 16a, 16b, 16c, of Moshier in the manner as required by Appellant's claim 1.

Therefore, Moshier and Krivoshein fail to disclose or render obvious connecting devices coupled to data buses and/or a data processing device which allow data to be interchanged between data buses, wherein "*the second data bus is a different type of bus system than the first data bus, and the third data bus is a different type of bus system than the first data bus and the second data bus*" as required by amended claim 1. Appellants respectfully submit that claim 1 is patentable for at least the above reasons. Further, Appellants respectfully submits that claims 2-14, which depend from claim 1, are patentable for at least the same reasons as claim 1 as well as on their own merits. Accordingly, Appellants respectfully request that the Board overturn the rejections of claims 1-14 under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a).

- B. Appellants respectfully submit that rejection of dependent claim 3 under 35 U.S.C. § 102(b) is further improper because Moshier fails to explicitly or inherently disclose "the coupling apparatus is configurable in such a way that the data transfer between at least two of the data buses is controllable as a function of the semantics of the data to be transmitted" as recited claim 3.

³ See Krivoshein at Col. 13, Ll. 20-23.

The Examiner further asserts in the Response to Arguments section of the Action that Moshier teaches at col. 4, lines 29-45 semantics of the data to be transmitted. Appellant respectfully disagrees. Moshier discloses a control element connected to each of the buses for directing the operation of the apparatus.⁴ Moshier at col. 4, lines 29-45 merely discloses bus source and destination address signals are placed on respective buses. However, Moshier does not disclose that the data transfer is controllable based on the type of data to be transferred. For example, example embodiments in Applicant's specification at least at paragraph [0008] disclose the coupling apparatus may be configured in such a way that the data transfer between two or three of the data buses may be controlled as a function of the semantics of the data to be transmitted, for example, it may be possible to configure the transmission of standard data differently to that for the transmission of safety-relevant or security-relevant data. Accordingly, example embodiments disclosed in Applicant's specification may allow for the transfer of data to be controlled based on the type of data, e.g., the semantics of the data, to be transferred. Moshier does not disclose transmitting different types of data or data having different semantics, let alone a coupling apparatus configurable based on the semantics of the data to be transferred. To the contrary, as noted above, each of the data buses in Moshier are the same as each other, and the portions of Moshier cited by the Examiner merely disclose source and destination addresses.

Therefore, Appellants respectfully submit that Moshier at least further fails to disclose, teach or suggest the feature, "*the coupling apparatus is configurable in such a way that the data transfer between at least two of the data buses is controllable as a function of the semantics of the data to be transmitted*" of dependent claim 3. Accordingly, Appellants respectfully request that the Board overturn the rejection of dependent claim 3 under 35 U.S.C. §102(b) for at least this additional reason. Further, Appellants respectfully submit that even assuming for the sake of argument Moshier and Krivoshein are properly combinable (which Applicant does not admit), Krivoshein fails to cure the deficiencies of Moshier discussed above in regards to claim 3, and therefore, claim 3 is not rendered obvious by Moshier in view of Krivoshein.

- C. Appellants respectfully submit that rejection of dependent claim 12 under 35 U.S.C. § 103(a) is further improper because Moshier and Krivoshein fail to explicitly or inherently disclose "wherein the second data bus is an AS-i bus" as recited claim 12.

⁴ See Moshier at Abstract.

Claim 12, in combination with claim 4 from which it depends, requires that "the first data bus is a Profibus" **and** "the second data bus is an AS-i bus." Accordingly, claim 12 requires that the first data bus and the second data bus have **different types of bus systems**, i.e., a Profibus and an AS-i bus. As noted above Moshier fails to disclose different types of bus systems or how to connect different types of bus systems. Krivoshein discloses a Profibus device network 34 and an AS-Interface device network 36. However, even assuming for the sake of argument a proper combination of Moshier and Krivoshein (which Applicant does not admit), the combination still fails to disclose or render obvious connecting devices coupled to data buses and/or a data processing device which allow data to be interchanged between data buses having different types of bus systems, i.e., where a first data bus is a Profibus and a second data bus is an AS-i bus. Therefore, Appellants respectfully submit that Moshier and Krivoshein at least further fail to disclose or render obvious the features of claim 12. Accordingly, Appellants respectfully request that the Board overturn the rejection of claim 12 under 35 U.S.C. §103(a) for at least this additional reason.

II. **CONCLUSION**

In view of the above, Appellants respectfully request that the Board recommend reconsideration and withdrawal of all the rejections and allowance of the pending claims, absent a non-final rejection based on more relevant prior art references.

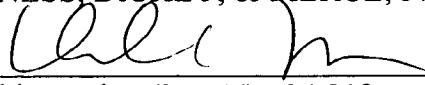
Should there be any outstanding matters that need to be resolved in the present application, the Board is respectfully requested to contact the undersigned at the telephone number below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, time extension fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By


Donald J. Daley, Reg. No. 34,313

DJD/AAM

P.O. Box 8910
Reston, VA 20195
(703) 668-8000